

IN THE CLAIMS:

Please cancel Claims 7-11, 15, 16, 20 and 21 without prejudice to or disclaimer of the subject matter presented therein.

Please amend Claims 1, 3, 6, 12, 14, 17 and 19 as follows.

1. (Currently Amended) A method of tracking facial features in a video sequence, said method comprising the steps of:

(a) receiving facial features for tracking in a first frame of said video sequence; (b) spatiotemporally segmenting said video sequence to provide a sequence of associated two-dimensional segments, a first two-dimensional segment in said sequence of associated two-dimensional segments including said facial features for tracking;

(c) identifying candidate facial features in ~~at least~~ a second two-dimensional segment in a second frame of said video sequence, said second two-dimensional segment being one of said sequence of associated two-dimensional segments; and

(d) verifying which of said candidate facial features correspond with said facial features for tracking

2. (Original) A method as claimed in claim 1 comprising the further step of:

(e) recovering lost facial features by using known geometric relations between facial features.

3. (Currently Amended) A method as claimed in claim 1 wherein step (c) comprises the sub-steps of:

(ci) forming a sub-image including said second two-dimensional segment in said sequence of associated two-dimensional segments;

(cii) normalising the size of said sub-image; and

(ciii) identifying candidate facial features in said normalised sub-image.

4. (Original) A method as claimed in 1 wherein step (d) measures the correspondence between said candidate facial features and said facial features for tracking.

5. (Original) A method as claimed in claim 4 wherein step (d) comprises determining whether said candidate facial features are within a region of said facial features for tracking in a previous frame.

6. (Currently Amended) A method as claimed in claim 5 wherein step (d) further comprises determining whether said candidate facial features within each of said regions ~~that are~~ similar in shape to said facial features for tracking in said previous frame.

7-11. (Canceled)

12. (Currently Amended) An apparatus for tracking facial features in a video sequence, said apparatus comprising:

means for receiving facial features for tracking in a first frame of said video sequence;

means for spatiotemporally segmenting said video sequence to provide a sequence of associated two-dimensional segments, a first two-dimensional segment in said sequence of associated two-dimensional segments including said facial features for tracking;

means for identifying candidate facial features in ~~at least~~ a second two-dimensional segment in a second frame of said video sequence, said second two-dimensional segment being one of said sequence of associated two-dimensional segments; and

means for verifying which of said candidate facial features correspond with said facial features for tracking.

13. (Original) An apparatus as claimed in claim 12 further comprising: means for recovering lost facial features by using known geometric relations between facial features.

14. (Currently Amended) An apparatus as claimed in claim 12 wherein said means for identifying comprises:

means for forming a sub-image including said second two-dimensional segment in said sequence of associated two-dimensional segments;

means for normalising the size of said sub-image; and

means for identifying candidate facial features in said normalised sub-image.

15-16. (Canceled)

17. (Currently Amended) A program stored on a memory medium for tracking facial features in a video sequence, said program comprising:

code for receiving facial features for tracking in a first frame of said video sequence;

code for spatiotemporally segmenting said video sequence to provide a sequence of associated two-dimensional segments, a first two-dimensional segment in said sequence of associated two-dimensional segments including said facial features for tracking;

code for identifying candidate facial features in at least a second two-dimensional segment in a second frame of said video sequence, said second two-dimensional segment being one of in-said sequence sequences of associated two-dimensional segments; and

code for verifying which of said candidate facial features correspond with said facial features for tracking.

18. (Original) A program as claimed in claim 17 further comprising:

code for recovering lost facial features by using known geometric relations between facial features.

19. (Currently Amended) A program as claimed in claim 17 wherein said code for identifying comprises:

code for forming a sub-image including said second two-dimensional segment in said sequence of associated two-dimensional segments;

code for normalising the size of said sub-image; and

code for identifying candidate facial features in said normalised sub-image.

20-21. (Canceled)